**Central Maine Community College**
**Androscoggin County**
**Auburn, Maine**
**A-819-71-B-R**

**Departmental**
**Findings of Fact and Order**
**Air Emission License**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

## I. REGISTRATION

### A. Introduction

Central Maine Community College (CMCC) located in Auburn, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their post secondary educational facility.

### B. Emission Equipment

The following equipment is addressed in this air emission license:

**Fuel Burning Equipment**

| Equipment | Maximum Capacity * (MMBtu/hr) | Maximum Firing Rate (gal/hr) | Fuel Type |
|---|---|---|---|
| Jalbert Boiler 1 | 4.2 | 30.2 | #2 fuel oil |
| Jalbert Boiler 2 | 4.2 | 30.2 | #2 fuel oil |
| Kirk Boiler 1 | 3.8 | 27.1 | #2 fuel oil |
| Fortin Boiler | 1.82 | 13.0 | #2 fuel oil |
| Culinary Boiler | 1.4 | 14.9 | Propane |
| LaPoint Boiler | 1.3 | 9.3 | #2 fuel oil |
| New Dorm 1 | 1.82 | 13.0 | #2 fuel oil |
| New Dorm 2 | 1.82 | 13.0 | #2 fuel oil |

* Note: Maximum capacities were calculated using boiler plate gallons per hour ratings and the heat content of the fuel (0.14 MMBtu/gal for #2 fuel oil and 0.094 MMBtu/gal for liquid propane).

CMCC operates several parts washers subject to licensing.

CMCC has various other activities including graphic arts (printing), woodworking, metalworking, and additional fuel burning equipment below the 1 MMBtu/hr licensing threshold; these are considered insignificant activities.

C. Application Classification

The application for CMCC includes renaming the boilers and correcting sizes listed in the previous license, the conversion of two boilers to #2 fuel oil (from #4 fuel oil), as well as the addition of two boilers not previously listed. The facility-wide emissions are not increasing. The license is considered to be a renewal and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

## II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Jalbert Boilers 1 and 2

Jalbert Boiler 1 was installed in 1991 and Jalbert Boiler 2 was installed in 1993. Both have a maximum input capacity rating of 4.2 MMBtu/hr. The boilers previously fired #4 fuel oil, but now fire #2 fuel oil. The two boilers exhaust through the same stack.

Based on size, neither boiler is subject to the New Source Performance Standards (NSPS) 40 CFR (Code of Federal Regulations) Part 60, Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

These boilers are included in the 350,000 gallons per year #2 fuel oil limit.

BPT emission limits for Jalbert Boilers 1 and 2 were based on the following:

PM (particulate matter) and $PM_{10}$ - 0.12 lb/MMBtu based on *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990): 0.50 lb/hr.

$SO_2$ (sulfur dioxide) – the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil (no greater than 0.5% sulfur content by weight): 2.1 lb/hr.

$NO_2$ (nitrogen oxide) – 20 lb/1000 gal from AP-42 Table 1.3-1 (dated 9/98): 0.6 lb/hr.

CO (carbon monoxide) - 5 lb/1000 gal from AP-42 Table 1.3-1 (dated 9/98): 0.15 lb/hr.

VOC (volatile organic compounds) – 0.34 lb/1000 gal from AP-42 Table 1.3-3 (dated 9/98): 0.01 lb/hr.

Opacity – based on *Visible Emissions Regulation*, 06-096 CMR 101: Visible emissions from the common stack shall not exceed 20% opacity on a six minute block average basis, except for no more than one (1) six minute block average in a 3-hour period.

C. Kirk Boiler 1, Fortin Boiler, Lapoint Boiler, New Dorm Boilers 1 and 2

Kirk Boiler 1 was installed in 1992 and has a maximum input capacity rating of 3.8 MMBtu/hr. The Fortin Boiler was installed in 2000 and has a maximum input capacity rating of 1.82 MMBtu/hr. The Lapoint Boiler was installed in 2002 and has a maximum input capacity rating of 1.3 MMBtu/hr. The two New Dorm Boilers have a maximum input capacity rating of 1.82 MMBtu/hr. These units all fire #2 fuel oil.

Based on size, none of the boilers are subject to the New Source Performance Standards (NSPS) 40 CFR (Code of Federal Regulations) Part 60, Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

These boilers are included in the 350,000 gallons per year #2 fuel oil limit.

BPT emission limits for the boilers were based on the following:

PM (particulate matter) and $PM_{10}$ - 0.12 lb/MMBtu based on *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) for the Kirk Boiler: 0.5 lb/hr for the Kirk Boiler. 2 lb/1000 gal from AP-42 Table 1.3-1 (dated 9/98) for the other four boilers: 0.02 lb/hr for the Lapoint Boiler and 0.03 lb/hr for the Fortin and two new dorm boilers.

$SO_2$ (sulfur dioxide) – the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil (no greater than 0.5% sulfur content by weight). 1.9 lb/hr for the Kirk Boiler, 0.7 lb/hr for the Lapoint Boiler and 0.9 lb/hr for the Fortin and two new dorm boilers.

$NO_2$ (nitrogen oxide) – 20 lb/1000 gal from AP-42 Table 1.3-1 (dated 9/98): 0.5 lb/hr for the Kirk Boiler, 0.2 lb/hr for the Lapoint Boiler and 0.3 lb/hr for the Fortin and two new dorm boilers.

CO (carbon monoxide) - 5 lb/1000 gal from AP-42 Table 1.3-1 (dated 9/98): 0.14 lb/hr for the Kirk Boiler, 0.05 lb/hr for the Lapoint Boiler and 0.07 lb/hr for the Fortin and two new dorm boilers.

VOC (volatile organic compounds) – 0.34 lb/1000 gal from AP-42 Table 1.3-3 (dated 9/98): 0.01 lb/hr for the Kirk Boiler, 0.003 lb/hr for the Lapoint Boiler and 0.004 lb/hr for the Fortin and two new dorm boilers.

Opacity – based on 06-096 CMR 101: Visible emissions from each boiler shall not exceed 20% opacity on a six minute block average basis, except for no more than one (1) six minute block average in a 3-hour period.

D. Culinary Boiler

The Culinary Boiler was installed in 1989 and has a maximum input capacity rating of 1.4 MMBtu/hr, firing propane.

Based on size, boiler is not subject to the New Source Performance Standards (NSPS) 40 CFR (Code of Federal Regulations) Part 60, Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

The Culinary Boiler has a 25,000 gallons per year liquid propane fuel limit.

BPT emission limits for the Culinary Boiler were based on the following:

PM (particulate matter) and $PM_{10}$ – 0.4 lb/1000 gal from AP-42 Table 1.5-1 (dated 10-96): 0.006 lb/hr

$SO_2$ (sulfur dioxide) – 0.018 lb/1000 gal from AP-42 Table 1.5-1 (dated 10-96): 0.0002 lb/hr

$NO_2$ (nitrogen oxide) – 14 lb/1000 gal from AP-42 Table 1.5-1 (dated 10-96): 0.2 lb/hr.

CO (carbon monoxide) – 1.9 lb/1000 gal from AP-42 Table 1.5-1 (dated 10-96): 0.03 lb/hr

VOC (volatile organic compounds) – 0.5 lb/1000 gal from AP-42 Table 1.5-1 (dated 10-96): 0.007 lb/hr

Opacity – based on 06-096 CMR 101: Visible emissions from the Culinary Boiler shall not exceed 10% opacity on a six minute block average basis, except for no more than one (1) six minute block average in a 3-hour period.

E. Parts Washers

CMCC has several parts washer units which are subject to *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

F. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

G. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

H. Annual Emissions

CMCC shall be restricted to the following annual emissions on a 12 month rolling total, based on 350,000 gallons/year of #2 fuel oil and 25,000 gallons/year of propane:

**Total Licensed Annual Emissions for the Facility**
**Tons/year**
(used to calculate the annual license fee)

| | **PM** | **$PM_{10}$** | **$SO_2$** | **$NO_x$** | **CO** | **VOC** |
|---|---|---|---|---|---|---|
| #2 Oil Boilers | 2.9 | 2.9 | 12.35 | 3.5 | 0.9 | 0.06 |
| Propane Boiler | 0.005 | 0.005 | 0.0002 | 0.2 | 0.02 | 0.006 |
| **Total TPY** | **2.9** | **2.9** | **12.3** | **3.7** | **0.9** | **0.07** |

## III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

| Pollutant | Tons/Year |
|---|---|
| PM | 25 |
| $PM_{10}$ | 25 |
| $SO_2$ | 50 |
| $NO_x$ | 100 |
| CO | 250 |

Based on the total facility emissions, CMCC is below the emissions level required for modeling and monitoring.

## ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-819-71-B-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

## STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The

Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such

occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

**SPECIFIC CONDITIONS**

(16) **Boilers**

A. Fuel use shall not exceed 350,000 gallons per year of #2 fuel oil meeting the criteria of ASTM D396, and 25,000 gallons per year of LPG, all based on a 12 month rolling totals. Compliance shall be demonstrated by purchase records from the supplier showing the quantity of fuel delivered and the type of fuel. Records shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

| Emission Unit | | PM | $PM_{10}$ | $SO_2$ | $NO_x$ | CO | VOC |
|---|---|---|---|---|---|---|---|
| **Jalbert Boiler 1** (4.2 MMBtu/hr, #2 oil) | lb/MMBtu | 0.12 | 0.12 | - | - | - | - |
| | lb/hr | 0.5 | 0.5 | 2.1 | 0.6 | 0.15 | 0.01 |
| **Jalbert Boiler 2** (4.2 MMBtu/hr, #2 oil) | lb/MMBtu | 0.12 | 0.12 | - | - | - | - |
| | lb/hr | 0.5 | 0.5 | 2.1 | 0.6 | 0.15 | 0.01 |
| **Kirk Boiler 1** (3.8 MMBtu/hr, #2 oil) | lb/MMBtu | 0.12 | 0.12 | - | - | - | - |
| | lb/hr | 0.5 | 0.5 | 1.9 | 0.5 | 0.14 | 0.01 |
| **Fortin Boiler** (1.8 MMBtu/hr, #2 oil) | lb/hr | 0.03 | 0.03 | 0.9 | 0.3 | 0.07 | 0.004 |
| **Culinary Boiler** (1.4 MMBtu/hr, prop.) | lb/hr | 0.006 | 0.006 | 0.002 | 0.2 | 0.03 | 0.007 |
| **LaPoint Boiler** (1.3 MMBtu/hr, #2 oil) | lb/hr | 0.02 | 0.02 | 0.7 | 0.2 | 0.05 | 0.003 |
| **New Dorm 1** (1.8 MMBtu/hr, #2 oil) | lb/hr | 0.03 | 0.03 | 0.9 | 0.3 | 0.07 | 0.004 |
| **New Dorm 2** (1.8 MMBtu/hr, #2 oil) | lb/hr | 0.03 | 0.03 | 0.9 | 0.3 | 0.07 | 0.004 |

C. Visible emissions from each boiler or any combined stack for the Jalbert Boilers 1 and 2, the Kirk Boiler, the Fortin Boiler, and the two New Dorm Boilers shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

D. Visible emissions from the Culinary Boiler shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(17) **Parts Washers**

The parts washers at CMCC are subject to 06-096 CMR 130.

A. CMCC shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
   1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under Chapter 130.
   1. CMCC shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      a. Waste solvent shall be collected and stored in closed containers.
      b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
      d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
      e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
      f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
      g. Spills during solvent transfer shall be cleaned immediately. Absorbent material shall be immediately stored in covered containers.

h. Work area fans shall not blow across the opening of the degreaser unit.
i. The solvent level shall not exceed the fill line.

2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(18) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(19) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(20) CMCC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard [38 M.R.S.A. §605)]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 3, 2006
Date of application acceptance: August 25, 2006

Date filed with the Board of Environmental Protection: _____

This Order prepared by Kathleen E. Tarbuck, Bureau of Air Quality.